

Principia College			UND		
Mechanical Engineering requirements					
ENGR 101 & ENGR 160	3/2	Graphical Communication/Intro to Engineering Profession	ME 101	3	Introduction to Mechanical Engineering
ENGR 204	3	Mechanical Engineering Student Design	ME 201	2	Student Design Lecture and Lab
ENGR 301	3	Material Science	ME 301	3	Materials Science
ENGR 306	3	Fluid Mechanics	ME 306	3	Fluid Mechanics
ENGR 322	3	Design of Machinery	ME 322	3	Design of Machinery
ENGR 323	3	Machine Component Design and Lab	ME 323/323L	4	Machine Component Design and Lab
CHEM 311	3	Physical Chemistry I: Thermodynamics	ME 341	3	Thermodynamics
Must be taken at UND			ME 418/418**	4	Manufacturing Processes and Lab
Must be taken at UND			ME 474	3	Fundamentals of Heat and Mass Transfer
Must be taken at UND			ME 480	3	Mechanical Engineering Seminar
Must be taken at UND			ME 483	3	Mechanical Measurements Lab
Must be taken at UND			ME 487	2	Engineering Design
Must be taken at UND			ME 488	3	Engineering Design
Program Required Electives (21 credits total required)*					
College of Engineering and Mines Requirements					
CSCI 171	4	Introduction to Programming	ENGR 200	2	Computer Applications in Engineering
ENGR 201	3	Engineering Mechanics: Statics	ENGR 201	3	Statics
ENGR 202	3	Engineering Mechanics: Dynamics	ENGR 202	3	Dynamics
ENGR 203	3	Mechanics of Materials	ENGR 203	3	Mechanics of Materials
ENGR 206	3	Electrical Engineering Circuit Analysis	ENGR 206	3	Fundamentals of Electrical Engineering
ENGR 340	3	Professional Integrity in Engineering	ENGR 340	3	Professional Integrity in Engineering
Must be taken at UND			ENGR 460	3	Engineering Economy
Required courses for CHE within other departments					
CHEM 131	4	Fundamentals of Chemistry I	CHEM 121/L	4	General Chemistry I and lab
MATH 181	4	Calculus I	MATH 165	4	Calculus I
MATH 182	4	Calculus II	MATH 166	4	Calculus II
MATH 283	4	Multivariable Calculus	MATH 265	4	Calculus III
MATH 380	3	Differential Equations	MATH 266	3	Intro to Differential Equations
MATH 364	3	Mathematical Statistics	MATH 321	3	Applied Statistical Methods
PHYS 201 + 202	4	Physics for Scientists/Engrs I + II	PHYS 251	4	University Physics I
Must be taken at UND			PHYS 252**	4	University Physics II

All Essential Studies requirements will be waived upon receipt of an official updated transcript verifying a bachelor's degree has been earned.

*Student may only transfer in one technical elective to apply to the requirements.

Three technical electives must be completed from UND, one in each stem unless pursuing the aerospace concentration. One technical elective can be taken outside the ME Department within other CEM Departments, Math or Physics. The course must be at the 300-level or higher and be consistent with the student's individual learning plan.

**These courses have different course designations for students in online programs, and are indicated with C & CL